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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,864	12/28/2001	Paul F.L. Weindorf	10541/502 (V200-0772)	2245
29074	7590	10/07/2003	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60611			DIAZ, JOSE R	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/040,864

Applicant(s)

WEINDORF ET AL.

Examiner

José R Díaz

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 1-42 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-48 and 50-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species VII, which is shown in figure 5 of the Specification, in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 43-48 and 50-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terao et al. (US Pat. No. 6,342,932 B1) in view of Laesser (US Pat. No. 4,118,111).

Regarding claims 43 and 55, Terao et al. teaches a LCD device comprising: a light emitting diode (22); a light pipe (15); and a liquid crystal display (11) (see Fig. 3).

However, Terao et al. is silent with respect to the light extracting surface, the diffuser; and the reflective polarizer. Laesser teaches that it is well known in the art to include a light extracting surface (the surface of the pipe light 5, adjacent to the reflector 8) located near a first side (the bottom surface of the light pipe 5, adjacent to the reflector 8) of the light pipe (5) (see Fig. 1); a diffuser (6) located near a second side (the top surface of the light pipe 5, opposite to the bottom surface) of the light pipe (5) (see Fig. 1), where the first and second sides are opposite sides of the light pipe (see Fig. 1); a reflective polarizer (3) (see Fig. 1); wherein light from the LED (4) enters the light pipe (5) and passes through the diffuser (6), the polarizer (3), then backlights the LCD (1) (see Fig. 1).

Terao et al. and Laesser are analogous art because they are from the same field of endeavor as applicant's invention. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include a light extracting surface, a diffuser; and a reflective polarizer in the LCD device. The motivation for doing so, as is taught by Laesser, is ensuring the electric connection between the display cell and its control circuit (col. 1, lines 27-28). Therefore, it would have been obvious to combine Laesser with Terao et al. to obtain the invention of claims 43-48 and 50-55.

Regarding claims 44, Terao et al. teaches the LED (22) is located along a perimeter of circuit board (20) (see Fig. 3).

Regarding claim 45, Terao et al. teaches that the circuit board (20) comprises a flexible circuit board (12) (see Fig. 3).

Regarding claim 46, Terao et al. further teaches a thermally conductive material (30) between the circuit board (20) and a frame (10) (see Fig. 3).

Regarding claim 47 and 48, Terao et al. teaches that the LED (22) has a side reflective orientation (please note that the LED is located on one side of the pipe light 15) with the light pipe (15) (see Fig. 3).

Regarding claims 50 and 51, Terao et al. further teaches a polarization scrambling material or an enhanced specular reflector (see col. 4, lines 49-50, in which a reflecting surface is provided on the holding member 10) between the LED (22) and the light pipe (15) (see Fig. 3), where light from LED (22) reflects from the enhanced specular reflector into the light pipe (15) (see col. 4, lines 47-50).

Regarding claims 52-54, Laesser teaches that it is well known in the art to include a second polarization scrambling material or an enhanced diffuser reflector (8) located along the light pipe (5) opposite the LCD (1).

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 43-48 and 50-55 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-16 and 21 of copending Application No. 10/040,855. Although the conflicting claims are not identical, they are not patentably distinct from each other because the LED in claim 12 can be any type of LED including non-white light emitting diode.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 43-48 and 50-55 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 33-40 of copending Application No. 09/939,493. Although the conflicting claims are not identical, they are not patentably distinct from each other because the light pipe of claim 33 can include the light-extracting surface.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maruyama (JP 09-288278) discloses a LCD device in Figs 1 and 2; Kretman et al. (US Pat. No. 6,497,946 B1) discloses a LCD device in Figure 9C; Iijima et al. (US Pat. No. 6,359,668 B1) discloses a LCD in Figures 8 and 10-16; and Seraphin et al. (US Pat. No. 5,889,568) discloses a LCD in Figure 6 and 13.

Correspondence

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to José R Díaz whose telephone number is (703) 308-6078. The examiner can normally be reached on 9:00-5:00 Monday, Tuesday, Thursday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


GEORGE ECKERT
PRIMARY EXAMINER

JRD